



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/654,618

09/04/2003

Young-Chan Kim

1293.1851

5000

21171 7590 05/12/2008

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

SHERMAN, STEPHEN G

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

05/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/654,618	Applicant(s) KIM ET AL.	
	Examiner STEPHEN G. SHERMAN	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the Appeal Brief filed 6 November 2007.
Claims 1-58 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-10 and 47-48 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant's arguments filed with respect to claims 11-46 and 49-58 have been fully considered but they are not persuasive.

On page 14 of the response the applicant argues the rejection of claims 11 and 25 by stating that Shaw does not suggest that "if the checked input signal is abnormal, the signal stops being displayed, particularly as Shaw specifically discusses switching to another video signal source if the microprocessor is not receiving the input HSYNC signal" and that "moving to a next signal source when a signal is not received is not stopping the display of the video signal". The examiner respectfully disagrees. The examiner cited the portions of the Shaw reference to show that when a signal is "abnormal" then the next input unit is checked, as is the same as in the Applicant's invention. What is also the same is that the unit checks the synchronizing signals to make this determination. When one signal is found to be "abnormal" then the unit is switched to the next signal to be checked. This is the same as stopping the signal

being displayed, because when the signal is being checked, it is displayed on the screen (See the combination of references made for the rejection), and when the next signal is checked it is displayed, meaning that the displaying of the “abnormal” signal is “stopped”. The claims do not specify what is meant by “stopped”, i.e. as to whether just the abnormal signal is stopped or whether display of any signal is stopped and therefore the interpretation is open to the examiner. The examiner interpreted that since the next signal being checked is displayed when the unit is switched, then this “stops” the display of the abnormal signal. If the applicant has intended any other meaning then the claims should be amended to clarify it.

On page 15 of the response the applicant argues the rejection of claims 40 and 49 by stating that Sugihara discusses only that the user sets whether a specific input terminal is to be skipped or not and that the user setting data for one of the terminals is not the same as the input port having priority at any given time in an order of checking by a signal checking unit. The examiner respectfully disagrees. The claims are broad and do not define what is meant by "priority in an order of checking" and the examiner interpreted that by the user setting different ports to be skipped or not skipped is equal to the input port having a priority. The claims only state “at least one of the input ports has priority in an order of checking by the signal checking unit as compared to another input port”. If the user sets one to be skipped and one not to be skipped, then the one not to be skipped has a “priority” in the order of checking over the port to be skipped, where despite what the applicant thinks, the input port can still have a priority even if the other ports are skipped because this means that the user has set only one port as

having a priority and that it will be the only port checked and thus has a “priority” over the other signals. As explained in the rejection, Figures 3A-3C show the “order of checking” of the signals, where the user can select VIDEO 1 to be skipped and VIDEO 2 to be checked, which means that VIDEO 2 has priority over VIDEO 1 in the “order of checking”. The claims do not say anything about "having priority at any given time" and if the applicant wants this to be in the claims, then the claims should be amended to have this feature.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-10 and 59-60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding independent claims 1 and 6, the claims have been amended to recite the limitations “a data setting unit that sets data corresponding to the identified type of input signal, the set data representing how to check the identified signal”. This limitation is not supported by the specification. Figure 1 shows that the input unit 111 is

Art Unit: 2629

connected to the data setting unit 112 which is in turn then connected to the signal identifying unit and the signal checking unit. Figure 2 and paragraph [0011] then state that "A user designates and inputs data on the number of times signals are checked, the time required to check the signals, and the order of checking the signals, by watching a screen of display unit 117 displayed according to an on-screen display method. Then, a data setting unit 112 receives and sets the data. A signal identifying unit 113 identifies ports of input signals to identify the types of input signals..." Thus, there is no support in the specification for the data setting unit to set data corresponding to the identified type of the input signal. Instead, it sets data based upon a user input. Therefore, the claims are not supported by the specification and thus fail to comply with the written description requirement.

Claims 2-5, 7-10 and 59-60 are rejected due to their dependency from claims 1 and 6.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 11-12, 14-19, 24-30, 32-33, 38-46, 49-54 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw et al. (US 5,276,436) in view of Sugihara et al. (US 6,122,018).

Regarding claim 11, Shaw et al. disclose a display device (Figure 3) comprising:
a signal identifying unit receiving an input signal (Figure 3 shows analog multiplex unit 34, which receives an input signal.);

a signal checking unit checking whether the identified input signal is abnormal (Figures 3 and 6 and column 9, lines 48-53 explain that the microprocessor 36 checks the received input signal from the multiplex unit to determine if there is a horizontal synchronizing signal present or not, where no synchronizing signal means that the input signal is “abnormal”.); and

a signal changing unit switching from the checked input signal to check a next input signal so that the signal checking unit checks whether the next input signal is abnormal (Figure 3 and 6 and column 9, lines 53-64 explain that the microprocessor tells the analog multiplex unit 34 to switch to a next input signal to be checked if no

synchronizing signal is present, i.e. if it is abnormal, and then the next input signal will be checked for the synchronizing signals to see whether that signal is "abnormal".);

wherein if the checked input signal is normal, the signal continues being displayed by the display device and if the checked input signal is abnormal, the signal stops being displayed by the display device (Column 9, lines 43-64 explain that if the signal is "abnormal", then the next input signal is checked, which means that the signal will be stopped from being displayed by the display device. Column 6, lines 21-51 and column 9, line 65 through column 10, line 19 state that when a signal is determined to be "normal" then the signal is passed and displayed on the display device.).

Shaw et al. fail to teach that the signal identifying unit identifies a type of the input signal and also fail to teach that the signal changing unit switches from the checked input signal to a next input signal to be checked based on set data corresponding to the identified type of the input signal.

Sugihara et al. discloses of a display device comprising:

a signal identifying unit that receives an input signal and identifies a type of input signal (Figure 1 shows the AV switch 2, which receives multiple different types of input signals and identifies these signals so as to be able to output the correct signal as commanded by the microcomputer 7.); and

a signal changing unit that switches from a first input signal to a next input signal based on set data corresponding to the identified type of the input signal (Figure 1 shows the AV switch 2, which is under the control of the microcomputer 7, where the microcomputer 7 switches from a first input signal to a next input signal based on data

set by a user which corresponds to the type of input signal. Column 4, line 52 to column 5, line 4 explain that the user sets data corresponding to the switching of the input ports that receive different types of input signals. Figure 4 and column 5, lines 13-50 explain the process of switching between the input signal ports depending on the data set, i.e. being skipped or not, by the user which corresponds to the types of input signals.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teaching of Sugihara et al. to allow a user to select which input ports to check based on the input signals connected with the abnormality checking display device taught by Shaw et al. in order to allow for the automatic changing of input ports based on user preferences such that the switching operation can be simplified to enable rapid switching.

Regarding claim 12, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. also disclose wherein the identified input signal and the next input signal are abnormal if cables carrying the signals are not connected to the display device (Column 9, lines 53-64 explain that the microprocessor tells the analog multiplex unit 34 to switch to a next input signal to be checked if no synchronizing signal is present. If there is no cable connected, there will be no synchronizing signal and thus the checking unit will sense there is not a cable connected.).

Regarding claim 14, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to explicitly teach wherein the signal identifying unit identifies whether the received input signal is a D-sub analog signal, however, D-sub analog signals are well known in the art, therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that one of the signals identified by Shaw et al. and Sugihara et al. could be a D-sub analog signal.

Regarding claim 15, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to explicitly teach wherein the signal identifying unit identifies whether the received input signal is a DVI analog signal, however, DVI analog signals are well known in the art, therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that one of the signals identified by Shaw et al. and Sugihara et al. could be a DVI analog signal.

Regarding claim 16, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to explicitly teach wherein the signal identifying unit identifies whether the received input signal is a DVI digital signal, however, DVI digital signals are well known in the art, therefore it would have been

obvious to “one of ordinary skill” in the art at the time the invention was made that one of the signals identified by Shaw et al. and Sugihara et al. could be a DVI digital signal.

Regarding claim 17, Shaw et al. and Sugihara et al. disclose the display device of claim 1.

Sugihara et al. also disclose wherein the signal identifying unit identifies whether the received input signal is a VIDEO signal (Figure 1 shows that the AV switch 2 receives video signals.).

Regarding claim 18, Shaw et al. and Sugihara et al. disclose the display device of claim 1.

Shaw et al. also disclose wherein the signal checking unit checks whether the identified input signal is abnormal by decoding the identified input signal (Column 9, lines 53-64 explain that the microprocessor tells the analog multiplex unit 34 to switch to a next input signal to be checked if no synchronizing signal is present. If there is no cable connected, there will be no synchronizing signal and thus the checking unit will sense whether or not there is a cable connected.).

Regarding claim 19, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. also disclose wherein the signal checking unit checks whether the identified input signal is abnormal by sensing whether an input signal cable is connected

(Column 9, lines 53-64 explain that the microprocessor tells the analog multiplex unit 34 to switch to a next input signal to be checked if no synchronizing signal is present. If there is no cable connected, there will be no synchronizing signal and thus the checking unit will sense whether or not there is a cable connected.).

Regarding claim 24, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Sugihara et al. also disclose the display device further comprising a menu from which a user determines the identified input signal is to be checked and a checking order (Column 4, line 52 to column 5, line 4 explain that the user sets data corresponding to the switching of the input ports that receive different types of input signals. Figure 4 and column 5, lines 13-50 explain the process of switching between the input signal ports depending on the data set, i.e. being skipped or not, by the user which corresponds to the types of input signals.).

Regarding claim 25, this claim is rejected under the same rationale as claim 11.

Regarding claim 26, this claim is rejected under the same rationale as claim 14.

Regarding claim 27, this claim is rejected under the same rationale as claim 15.

Regarding claim 28, this claim is rejected under the same rationale as claim 16.

Regarding claim 29, this claim is rejected under the same rationale as claim 17.

Regarding claim 30, this claim is rejected under the same rationale as claim 12.

Regarding claim 32, this claim is rejected under the same rationale as claim 18.

Regarding claim 33, this claim is rejected under the same rationale as claim 19.

Regarding claim 38, this claim is rejected under the same rationale as claim 24.

Regarding claim 39, this claim is rejected under the same rationale as claim 25.

Regarding claim 40, please refer to the rejection of claim 11, and furthermore Sugihara et al. also disclose that the input ports are what is being detected (Figures 3A-3C), and wherein at least one of the input ports has priority in an order of checking by the signal changing unit as compared to another input port (Figures 3A-3C and Column 4, line 52 to column 5, line 4 explain that the user sets data corresponding to the switching of the input ports that receive different types of input signals, and thus the user will determine the priority of the signals, where if VIDEO 1 is skipped and VIDEO 2 is not, then VIDEO 2 has a priority over VIDEO 1.).

Regarding claim 41, Shaw et al. and Sugihara et al. disclose the displaying device of claim 40.

Sugihara et al. also disclose wherein the order of checking of the input port is selected among a plurality of checking orders (Since the user can select any channels to be skipped or not, then there are a plurality of orders in which the user can select from.).

Regarding claim 42, Shaw et al. and Sugihara et al. disclose the displaying device of claim 41.

Sugihara et al. also disclose wherein the checking order is set by the user (Column 4, line 52 to column 5, line 4 explain that the user sets data corresponding to the switching of the input ports that receive different types of input signals. Figure 4 and column 5, lines 13-50 explain the process of switching between the input signal ports depending on the data set, i.e. being skipped or not, by the user which corresponds to the types of input signals.).

Regarding claim 43, Shaw et al. and Sugihara et al. disclose the displaying device of claim 42.

Sugihara et al. also disclose wherein a menu is provided on a screen of the displaying device to set the checking order (Figures 3A-3C).

Regarding claim 44, this claim is rejected under the same rationale as claim 17.

Regarding claim 45, this claim is rejected under the same rationale as claim 18.

Regarding claim 46, Shaw et al. and Sugihara et al. disclose the displaying device of claim 40.

Shaw et al. also disclose wherein the displaying device is capable of displaying a computer signal (Figure 3, element 21 is a computer, which are capable of display on the active matrix panel 16.).

Regarding claim 49, this claim is rejected under the same rationale as claim 40.

Regarding claim 50, this claim is rejected under the same rationale as claim 14.

Regarding claim 51, this claim is rejected under the same rationale as claim 15.

Regarding claim 52, this claim is rejected under the same rationale as claim 16.

Regarding claim 53, this claim is rejected under the same rationale as claim 17.

Regarding claim 54, this claim is rejected under the same rationale as claim 18.

Regarding claim 56, this claim is rejected under the same rationale as claim 41.

Regarding claim 57, this claim is rejected under the same rationale as claim 42.

Regarding claim 58, this claim is rejected under the same rationale as claim 43.

9. Claims 13, 20-23, 31, 34-37 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw et al. (US 5,276,436) in view of Sugihara et al. (US 6,122,018) and further in view of Yamashita et al. (US 5,808,693).

Regarding claim 13, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to explicitly teach wherein the identified input signal and the next input signal are abnormal if H-sync and V-sync patterns associated with the signals are abnormal.

Yamashita et al. disclose a display device wherein an identified input signal and a next input signal are abnormal if H-sync and V-sync patterns associated with the signals are abnormal (Column 4, lines 55-65 and column 5, lines 7-15.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the teachings of Yamashita et al. in the display device taught by the combination of Shaw et al. and Sugihara et al. in order to allow for a determination of whether an input signal is able to be displayed or not based not only

on the signal being present or not but on whether there is a problem with the signal being presented.

Regarding claim 20, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to teach the display device further comprising a data setting unit that sets the number of times the identified input signal is checked, wherein if the signal checking unit has not checked the number of set times, the signal checking unit continues the checking.

Yamashita et al. disclose a display device comprising a data setting unit that sets the number of times an identified input signal is checked, wherein if a signal checking unit has not checked the number of set times, the signal checking unit continues the checking (As shown in Figure 2 the number of times the input signal is checked is 1, so when it hasn't been checked it is checked and after it is checked once it moves on to the next input signal.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the teachings of Yamashita et al. in the display device taught by the combination of Shaw et al. and Sugihara et al. in order to allow for enough time to check whether the input signal is the correct input signal or not.

Regarding claim 21, Shaw et al. and Sugihara et al. disclose the display device of claim 11.

Shaw et al. and Sugihara et al. fail to teach the display device further comprising a data setting unit that sets the time required to check the identified input signal, wherein if the signal checking unit has not checked the identified input signal for the set period of time, the signal checking unit continues checking whether the identified signal is abnormal.

Yamashita et al. discloses a display device comprising a data setting unit that sets the time required to check the identified input signal (Figure 2 shows that a timer is set for checking the identified input signal),

wherein if the signal checking unit has not checked the identified input signal for the set period of time, the signal checking unit continues checking whether the identified signal is abnormal (Column 6, lines 1-32 and Figures 2 and 3 shows that the process repeats for checking the input signal abnormality.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the teachings of Yamashita et al. in the display device taught by the combination of Shaw et al. and Sugihara et al. in order to allow for enough time to check whether the input signal is the correct input signal or not.

Regarding claim 22, Shaw et al., Sugihara et al. and Yamashita et al. disclose the display device of claim 11.

Sugihara et al. also disclose the display device further comprising a data setting unit that sets the position of the identified input signal to be checked within a sequence of identified input signals to be checked (Figures 1 and 3A-3C and column 4, line 52

through column 5, line 43 explain that the user determines the sequence, i.e. sets the position of the identified input signal.).

Regarding claim 23, Shaw et al., Sugihara et al. and Yamashita et al. disclose the display device of claim 22.

Sugihara et al. also disclose the display device further comprising a signal controlling unit that checks the position of the checked input signal within the sequence of identified input signals to be checked to determine which identified input signal is to be checked after the checked input signal, wherein the signal changing unit switches from the checked input signal to the determined input signal so that the signal checking unit can check whether the determined input signal is abnormal (Figures 1 and 3A-3C and column 4, line 52 through column 5, line 43 explain that the user determines the sequence, where the microcomputer 7 will controller the AV switch 2 based upon the sequence set by the user. And as described in the rejection above, the next signal will then be checked for abnormality.).

Regarding claim 31, this claim is rejected under the same rationale as claim 13.

Regarding claim 34, this claim is rejected under the same rationale as claim 20.

Regarding claim 35, this claim is rejected under the same rationale as claim 21.

Regarding claim 36, this claim is rejected under the same rationale as claim 22.

Regarding claim 37, this claim is rejected under the same rationale as claim 23.

Regarding claim 55, this claim is rejected under the same rationale as claim 13.

10. Claims 47-48 and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (US 5,808,693) in view of Takano et al. (US 2003/0179822).

Regarding claims 47 and 48, Yamashita et al. disclose of a displaying device comprising:

- a first input port for receiving a first signal (Figure 1, element 1);
- a second input port for receiving a second signal (Figure 2, element 2); and
- an input port (Figure 1, element 3) changing unit for switching from the first/second input port to the second/first input when the displaying device determines that the first/second input port is not receiving a normal input signal (Figure 1 shows that selector 3 has input terminals 3a and 3b which correspond to the different input signals 1 and 2, where it is explained in column 4, lines 55-65 and column 5, lines 7-15 that if the input signal is not "normal" then the input is switched from one terminal to the other to proceed with the checking of the input terminals.).

Yamashita et al. fail to teach wherein the input ports are analog and digital input ports.

Takano et al. discloses of a displaying device with an analog input port and a digital input port (Figure 1 shows ANALOG 120 and DIGITAL 115).

Therefore, since Yamashita et al. and Takano et al. each teach of having input ports, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to substitute one kind of input port for the other, such as to make the input ports of Yamashita et al. analog and digital in order to achieve the predictable result of receiving input signals.

Regarding claim 61 and 62, Yamashita et al. and Takano et al. disclose the display device of claims 47 and 48.

Yamashita et al. also disclose wherein, whether the digital input port receives the normal digital input signal is determined by sensing whether a cable via which each signal is input is connected (Column 4, lines 55-65 explain that the checking of the input signal is done on the vertical and horizontal sync signals the horizontal and vertical sync signals are checked for the abnormalities, thus the absence of these signals would result in the signal be "abnormal." If video cables are not connected then the horizontal and vertical sync signals will not be present and the signal will be identified as "abnormal.").

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN G. SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629

6 May 2008